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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,161	09/17/2003	Tae-Kyu Choi	P-0570	4182

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EXAMINER
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NGUYEN, HOANG V

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/664,161

Applicant(s)

CHOI, TAE-KYU

Examiner

Hoang V Nguyen

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12,23 and 27 is/are rejected.
- 7) ☒ Claim(s) 13-22,24-26 and 28-39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 12, 23 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Creigh et al (USP 6,429,817).

Regarding claim 12, Creigh (Figures 1 and 3) discloses a wireless terminal comprising a body 20; a cover 40 rotatably connected to the body; and a support member 80 rotatably mounted within the body and supporting an antenna 50.

Regarding claim 23, Creigh (Figures 1 and 3) discloses a wireless terminal comprising a body 20; a first antenna 50; a cover 40 rotatably connected to the body; and a support member 80 rotatably mounted within the body and supporting the first antenna 50.

Regarding claim 27, as applied to claim 23, Figure 1b of Creigh shows that the antenna is a vertical polarization antenna.

***Allowable Subject Matter***

3. Claims 13-22, 24-26 and 28-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 1-11 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 1, Creigh discloses a wireless terminal comprising a support member rotatably supported in the terminal; a vertical polarization antenna connected to the support member. Creigh, however, fails to further teach a bias member which returns the support member to an original position from a rotated position; and a connector which electronically connects the vertical polarization antenna to a printed circuit board mounted in the terminal.

Claims 2-7 are allowed for depending on claim 1.

Regarding claim 8, Creigh discloses a wireless terminal comprising a support member rotatably supported in the terminal; a vertical polarization antenna connected to the support member. Creigh, however, fails to further teach a bias member which returns the support member to an original position from a rotated position; a first connector which connects the vertical polarization antenna to a printed circuit board of the terminal; a circular polarization antenna connected to the support member; and a second connector which connects the circular polarization antenna to the printed circuit board.

Claims 9-11 are allowed for depending on claim 8.

Regarding claim 13, Creigh discloses a wireless terminal comprising a body; a cover rotatably connected to the body; and a support member rotatably mounted within the body and supporting an antenna. Creigh, however, fails to specifically teach that the support member rotates from a first position to a second position when the cover is opened relative to the body.

Claims 14, 15 and 22 would have been found allowable for depending on claim 13.

Regarding claim 16, Creigh discloses a wireless terminal comprising a body; a cover rotatably connected to the body; and a support member rotatably mounted within the body and

Art Unit: 2821

supporting an antenna. Creigh, however, fails to further teach an electrical contact on the support member, wherein one end of the contact is coupled to the antenna and a second end is coupled to a circuit of the terminal.

Claims 17-21 would have been found allowable for depending on claim 16.

Regarding claim 24, Creigh discloses a wireless terminal comprising a body; a first antenna; a cover rotatably connected to the body; and a support member rotatably mounted within the body and supporting the first antenna. Creigh, however, fails to specifically teach that the support member rotates from a first position to a second position when the cover is opened relative to the body.

Claims 25, 26 and 34 would have been found allowable for depending on claim 24.

Regarding claim 28, Creigh discloses a wireless terminal comprising a body; a first antenna; a cover rotatably connected to the body; and a support member rotatably mounted within the body and supporting the first antenna. Creigh, however, fails to further teach an electrical contact on the support member, wherein one end of the contact is coupled to the antenna and a second end is coupled to a circuit of the terminal.

Claims 29-33 would have been found allowable for depending on claim 28.

Regarding claim 35, Creigh discloses a wireless terminal comprising a body; a vertical polarization first antenna; a cover rotatably connected to the body; and a support member rotatably mounted within the body and supporting the first antenna. Creigh, however, fails to further teach a circular polarization second antenna disposed on the support member.

Claims 36-39 would have been found allowable for depending on claim 35.

*Correspondence*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang V Nguyen whose telephone number is (571) 272-1825. The examiner can normally be reached on Mondays-Fridays from 9:00 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hvn  
11/9/04



**HOANG V. NGUYEN  
PRIMARY EXAMINER**